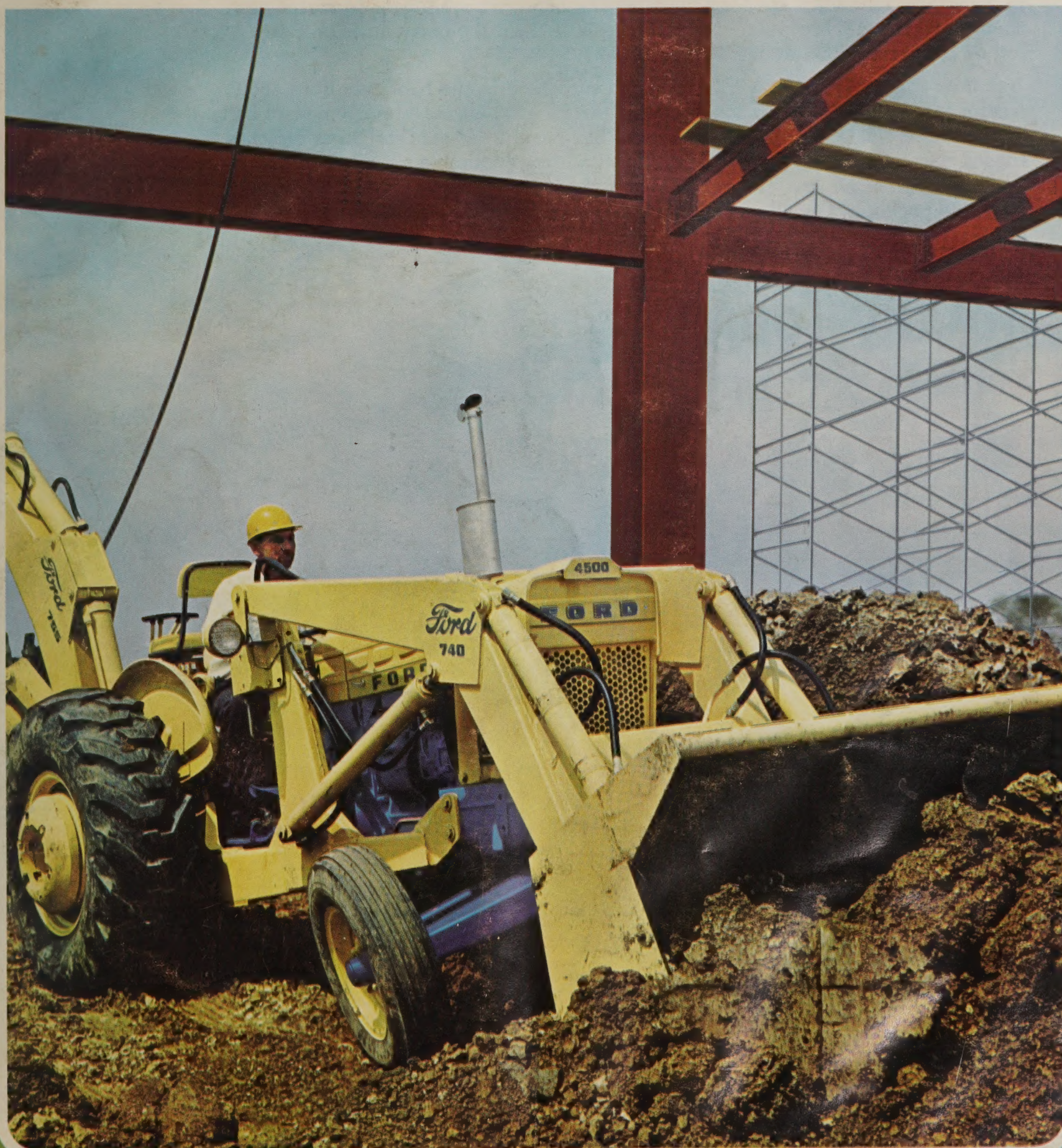


FORD



4500 Loader/Backhoe



Ford 4500 Tractor-Loader Totally New

Ford engineers were told: "Design fast-cycling construction tractors that are new from the ground up. Use nothing from former models unless proved superior in performance, reliability and long life. Develop mounted equipment to match new tractor efficiency. Then build at a price to make them the best values ever to roll off a tractor assembly line . . ."

See how these goals have been met and surpassed in the New-Size Ford 4500 tractor-loader! Compare the blocky, brute-strong 4500 engine—totally new in heft, strength and efficiency. Note how massive box-beam front-axle stoutness matches rugged rear axle construction—to carry and power productive mounted equipment. Then size up the all-new integral frame for the new $\frac{7}{8}$ -yard 740 loader and new 15-ft 755 backhoe. The all new 4500 takes 'em as they come: jobs, conditions, competition!

Totally Tough with backbone and strength for standout work capacity

New Ford 4500 design adds up to total toughness, to deliver outstanding capacity with mounted excavating, loading and material-moving equipment. Drive a 4500 and you'll experience the "solid" feel of greater weight, strength and balance—not to mention new operating comfort and ease of control.

This new heavy-weight entry in the 55-hp class is supplied complete with integral frame and complete equipment hydraulic system. It supplies ample capacity for fast-cycle operation of the Ford 740 loader having full-height lift capacity of 3,750-lb. The hydraulic system includes pump, valves and complete reservoir and filtration system. The integral frame also provides for quick, easy mounting of the Ford 755 high-production backhoe having maximum digging depth of 15 ft., 4 in.



Engine, power train, and final drive all new, all tough from the ground up: Front support, engine, transmission and rear axle housings are strong and ruggedly joined. The backbone formed by this design is "steel-beam" strong! The heavy malleable axle support bolts to the cast engine pan and the block for great extra strength—to meet rough, heavy working conditions. Convenient equipment mounting pads are cast into the transmission case and front axle support. The heavy-duty diesel engine delivers 53.2 hp,* the gasoline model 55.3—ideal power for loading, trenching and similar types of work.

**Net flywheel hp, corrected to standard conditions.*



New 3,750-lb Ford 740 Loader

gives class-topping capacity



Heading its power class in working weight, the all-new Ford 4500 tractor-loader develops the traction needed for high-production stockpile loading, backfilling, peeling, excavating and grading. Compact 80-inch wheelbase, power steering, and easy-acting, multiple disc brakes

immersed in oil provide for precise maneuvering in restricted areas. Above all, note the clean uncluttered design—the lack of entangling hose or hydraulic lines. The operator steps quickly and easily to the seat of a 4500—from either side of the tractor!

Lift arms and cylinders of the all-new Ford 740 loader mount on the integral frame of the 4500 tractor to form a rugged, fast-working tractor-loader unit. Tapered rectangular lift arms are welded along the inner and outer seams. Box section design, of high-strength steel, provides extra built-in strength without excess weight. Rigidity of the lift arm assembly is assured by a large, box-section cross member. Stack-type, three-spool control valve assembly provides up, down and neutral bucket control positions. Lift spool provides up pressure, down pressure, neutral and "float." Positive feathering is provided by tapered lands on the valve spool. Compensating valve provides self-leveling bucket action without extra cylinders or mechanical linkage. Ford-built cylinders are honed to a micro-finish; piston rods are turned, heat-treated and hard chrome plated. Chevron-type rod gland and piston packings are backed up by phenolic or glass-filled nylon rings for optimum bearing and packing life. Look at the new Ford 740 and compare—for capacity, operating ease, low upkeep, long life!

BRIEF SPECIFICATIONS

	GAS 2200 rpm	DIESEL 2200 rpm
Net flywheel hp, with fan, muffler, air cleaner, and radiator (Manufacturer's estimate, maximum corrected)*	55.3	53.2
Engine torque at rated speed, lb-ft (corrected)*	132	127
Maximum torque, lb-ft (corrected)*		
@1,450 rpm	146	
@1,000 rpm		150
Bore and stroke, in.	4.4 x 4.2	4.4 x 4.4
Displacement, cu. in.	192	201

*less hydraulic pump on engine

HYDRAULICS

Crankshaft mounted vane-type pump. 21.3 gpm @ 1,700 rpm and 1,600 psi. 14-gallon capacity (tractor and loader). Optional 3-point hitch powered by separate engine-mounted pump.

TRANSMISSION OPTIONS

Torque converter with 4-speed, power-reversing transmission. Select-O-Speed—Full range power shift, 10 speeds forward, two reverse. Four-speed, manual reverse, 4 speeds forward, 4 reverse.

LOADER

Lift capacity, full height—3,750 lb (bucket rolled back)
Breakout force—6,000 lb
Raise, dump, lower cycle time—11.0 sec.
Rollback (at ground level)—30°
Bucket self-leveling—all hydraulic
Reach at maximum height—26.5 in.
Cylinder diameter—3 in.
Piston rod diameter, Lift Arms—2 in.
 Bucket—1.5 in.
Counterweight box—9.75 cu ft capacity
Bucket options: 7/8 cu yd stockpile; 1 cu yd general materials;
 1-1/8 cu yd light materials

DIMENSIONS

Wheelbase, in.	79.4
Turning radius—with brakes	16'2"
Overall height—over loader posts, in.	61.0
Overall length—bucket lip on ground to rear tires	14'9"
Front wheel tread, in. (fixed)	56.0
Rear wheel tread (adjustable) in.	56"-76"
Approximate shipping weight, including loader frame, hydraulic system and lift assembly with oil, water and 10 gal. diesel fuel, lbs.	6,135

STANDARD EQUIPMENT includes power steering, foot accelerator, differential lock, tool box. Industrial seat—vertical exhaust.



Self-leveling bucket makes operations faster, easier. New compensating loader valve automatically positions the loader bucket during the lift cycle to retain load. Reduces chance of spill, leaves operator's hands free. Operator may override self-leveling of bucket at any time. No extra cylinders of mechanical linkage to maintain.



Heavy-duty front axle is a tapered, welded box beam of high-strength steel. Rated load capacity of this rugged front end is 8,500 pounds.

Real Comfort is provided the Ford 4500 tractor-loader operator by deluxe, comfort-contoured adjustable seat. Power-assist steering is standard . . . low-profile loader posts do not interfere

with operator's view of the bucket. All loader controls are closely grouped for easy, one-hand operation from the sit down, or stand-up seat position.

New 15-foot Ford 755 Backhoe... gives deep-hole digging power

The deeper you dig with a new Ford backhoe, the greater the digging force. This remarkable deep-hole digging power is the result of new in-line placement of boom and crowd cylinders—full power of both cylinders can be applied simultaneously. The new 15-ft 755 backhoe develops up to 50 percent more digging force as the former model at the deeper trenching and excavating depths. You fill buckets faster, with a new Ford backhoe!





753 13-foot Backhoe

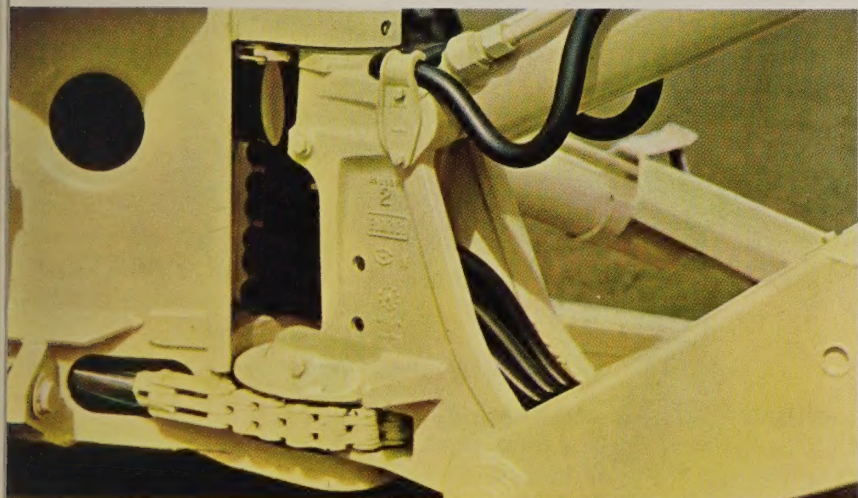
The new Ford 753 backhoe also teams with the 4500 tractor-loader (shown here on the 4400 tractor). The 753 offers the same design and performance advantages as the model 755, for a tooth-point digging depth of 13 ft, 8 in.



In-line design of large (4½-inch) boom and crowd cylinders produces breakout force of over 10,000 pounds with the 755 backhoe, 8,700 pounds with the 753. Bucket rotation of 194° leads the field, aids in producing 25,000 pounds or more of pryout force.



Wide-stance stabilizers have a 10-ft, 2-in. spread for great lateral stability when swinging big buckets filled with heavy earth. They are angled to provide maximum stability against tractor movement as the powerful crowd force is exerted on the bucket.



New swing system applies constant high torque throughout the 185° swing arc. Swing post is rotated by high-strength, leaf-type chain from single-acting hydraulic cylinders.



New arch boom is fabricated of high-strength steel, with bottom member 66 per cent heavier than sides and top. Box beam ends are of closed construction, providing great resistance to twisting strains.

Totally New Power

It will pay you to take a close look at a new 4500 engine. At a glance, you can see it is heavier, stronger, tougher. Structurally, it ranks with the strongest ever put in a Ford tractor. Then step to the seat, start it running and enjoy a new sensation of smoothness! Put it under load, lug it 'way down and see how it hangs on without splutter or flutter. Note how, on heavy drawbar loads, the greater weight up front contributes greatly to superior stability for precise steering and greater operator safety. Then study the specifications—you'll quickly see why these new all-tractor engines offer superior performance with reduced maintenance.

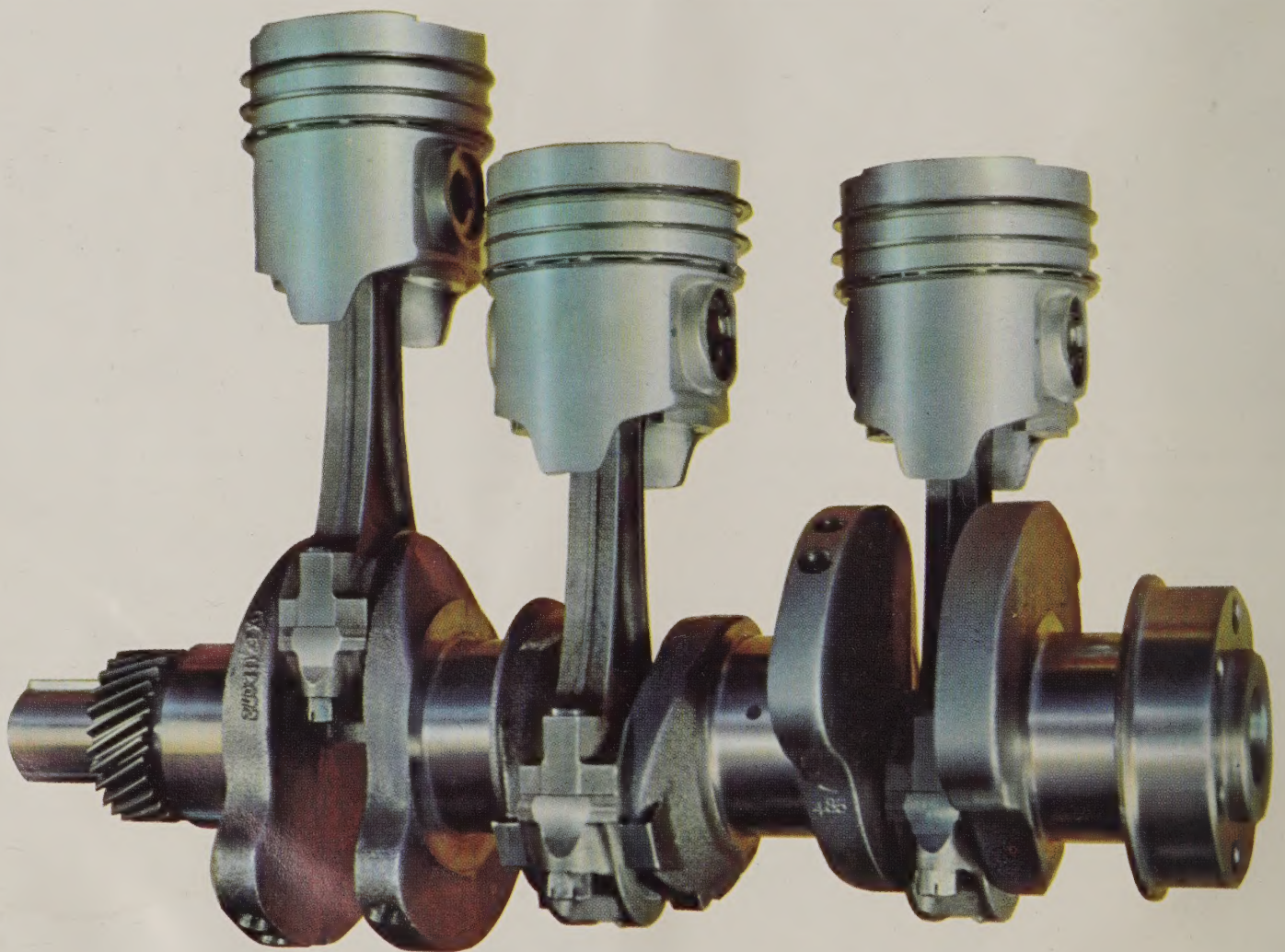
■ **Low Friction** Short stroke, square design means slower piston travel speed in feet per minute, resulting in reduced friction and less wear.

■ **Excellent Lugging Ability** You get time-saving, work-speeding high torque over the wide speed range of 800 to 2,200 rpm—a big advantage in variable conditions.

■ **Long-Lasting Efficiency** Positive exhaust valve rotators; hardened valve seat inserts, clean combustion, cooling without "hot spots" are design details that prolong parts life, add dependability, reduce upkeep.

■ **Free-Breathing for Clean Combustion** Large diameter valves, large-bore cylinders and opposed intake and exhaust manifolds provide free breathing that contribute to fuel economy, high torque performance, clean exhaust.

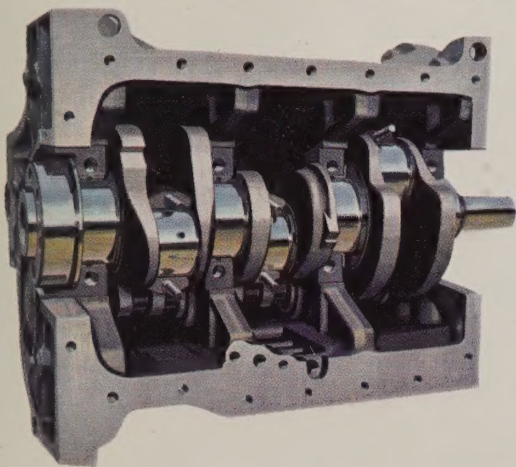
■ **Heavy-Duty Air Cleaner** Air intake is located in front of radiator, proved more dust-free than any other location. Dry-type air cleaner, 6.5 in. in diameter, effectively provides high efficiency with simplified servicing.



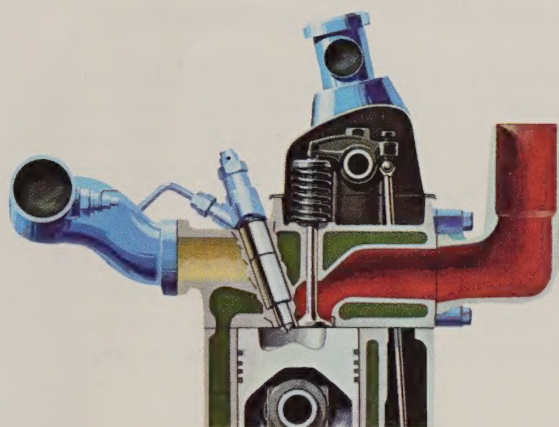
Heavy-duty crankshaft and bearings. Four main bearings, each $3\frac{3}{8}$ in. diameter, provide long service life and effectively prevent crankshaft "whip" under heavy load.

Choose rugged high-efficiency diesel or diesel-strong gasoline engine

With a new Ford 4500 tractor, choice of gasoline or diesel engine is strictly your choice, based on your fuel preference and the economics of your annual tractor usage. Both engines are equally strong and highly efficient. Ford engineers first designed these engines for diesel service, with strength to withstand the higher compression forces of diesel combustion. Then, using identical major components, the engine was modified for carbureted combustion with 8:1 compression ratio. Piston displacement varies slightly, with the result that both diesel and gasoline models produce similar maximum rated horsepower.



Massive engine block is deep-ribbed for exceptional rigidity. Advanced casting methods produce uniform cylinder wall thickness for fast, uniform heat transfer without "hot spots."



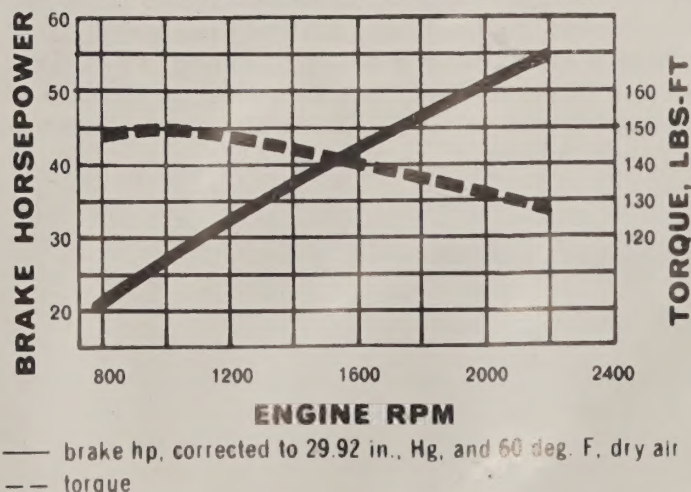
Opposed manifolds permit larger, straighter intake and exhaust passages. Ford's large bore, short stroke design makes room for bigger valves. These engines breathe deeper—give greater efficiency.

Heavy-duty pistons—long-life rings. Pistons of special aluminum alloy have a special, heat-resistant alloy insert. This insert holds the top ring with rigid precision, to prevent "pound out" and practically doubling ring life. All rings except bottom compression ring are chrome-faced, to last. "Whip-proof" rods are heavy steel forgings.



"Power-Peak" swirl chamber— Ford engineers tested hundreds of shapes before perfecting the "power peak" swirl-chamber. This chamber is recessed in piston top to provide fuel-air mixing turbulence for clean combustion. Similar construction of gasoline engine pistons promote clean, efficient fuel burning.

DIESEL ENGINE CHARACTERISTICS with radiator, fan, air cleaner and muffler



Power Curve of the new Ford 4500 tractor's three-cylinder diesel shows near-uniform torque all the way from 800 to 2,200 rpm. Get excellent lugging ability without "lug-down" on full or part throttle work!

Transmissions

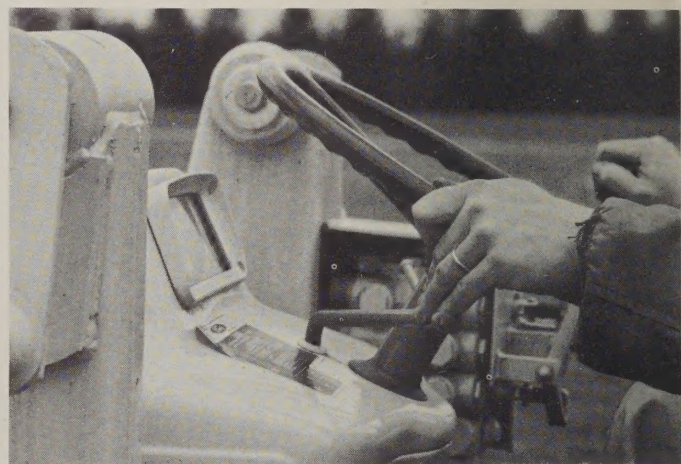
to speed every step of the job

To best match the 4500 to your type of work, Ford offers a choice of three versatile, responsive transmissions. A rugged, manual-reversing four-speed transmission is standard for a top combination of fast-cycle operation with low initial cost. For work requiring a wide range of speeds, you can specify time-proved, power-shift Select-O-Speed, providing ten speeds forward and two reverse. For top productivity with smooth, shock-cushioning fluid power, select Ford's torque converter drive, coupled with power-reversing four-speed transmission. With a 4500 you can specify the transmission that offers you top earning ability, top savings of time and energy for your job!

Torque Converter

with "finger flick" power reversing

Ford's torque converter, coupled with power reversing four-speed transmission, can speed up stockpile loading as much as 30 per cent. It also increases productivity in backfilling, peeling, cutting, grading—all types of work where steady power and a fast shuttle cycle are essential to top production. With fluid power in the drive train, harmful shockloads are virtually eliminated. No clutch to slip and wear. Tractor direction is instantly reversed with the flick of a lever. Operator easily shifts—a mere movement of the left hand. Right hand is free to operate equipment controls. Right foot free to accelerate or brake as required.



Power Shift

with 10-speed, all-gear drive

Ford-developed Select-O-Speed is the power-shift transmission with 100 million hours of performance proof behind it. Available at surprisingly modest cost, Select-O-Speed is a planetary transmission, hydraulically shifted throughout ten forward gears. Shifting is quick, easy, without clutching. You match work load and travel speed to engine power on-the-go—shorten cycle time to increase capacity. There also are two reverse speeds. Fully independent PTO optional.



Manual Reversing

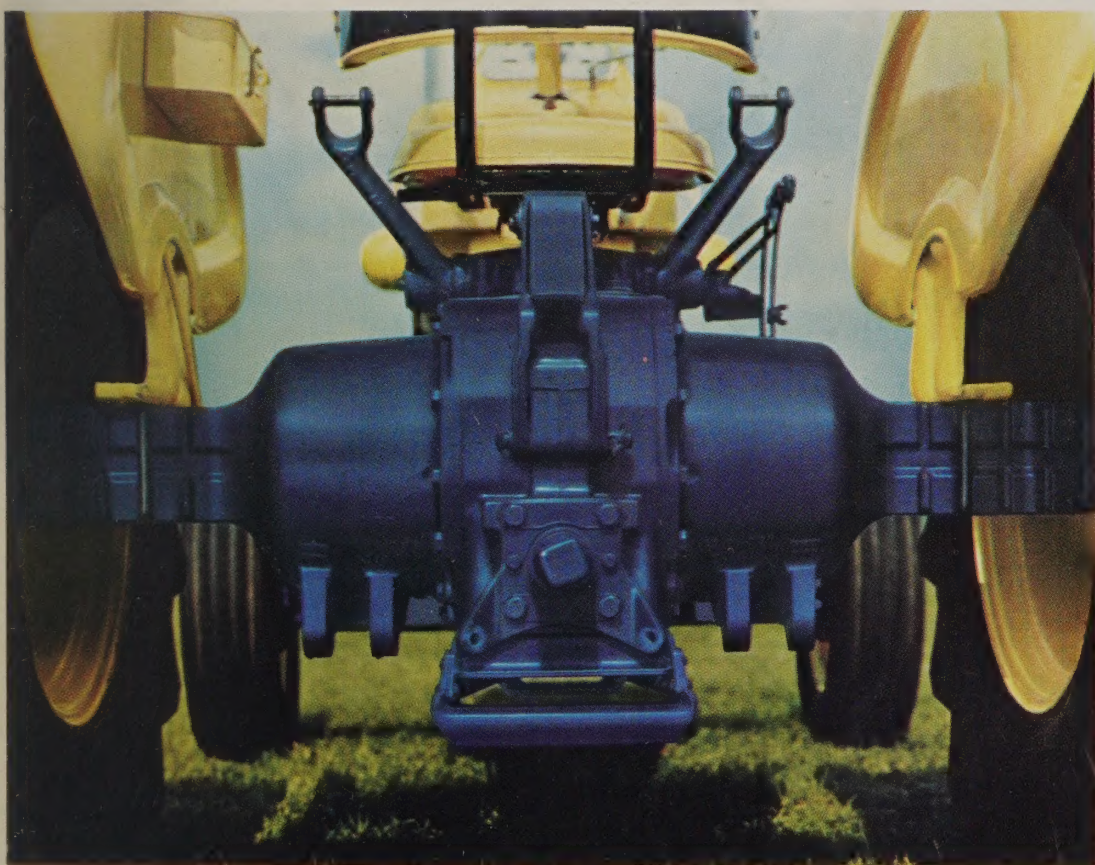
four-speed transmission

The low-cost manual reversing transmission provides four speeds forward and four comparable speeds in reverse—ideal for high-production shuttle-type work. Speeds are 2.6 and 5.3 mph in low range, 9.3 and 18.8 in high range. Gearshift is a simple back-and-forth pattern. Independent or transmission-type PTO optional.



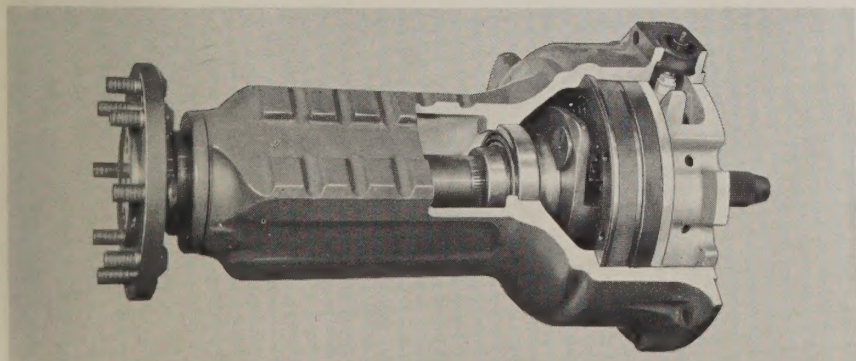
Double Reduction Final Drive

The rugged final drive combines a straddle-mounted, four-pinion differential with planetary gearsets inboard on rear axle shafts. The planets divide the rear axle torque by three to cushion gears and shafts from shock load stresses, while reducing the torque load on transmission and differential.

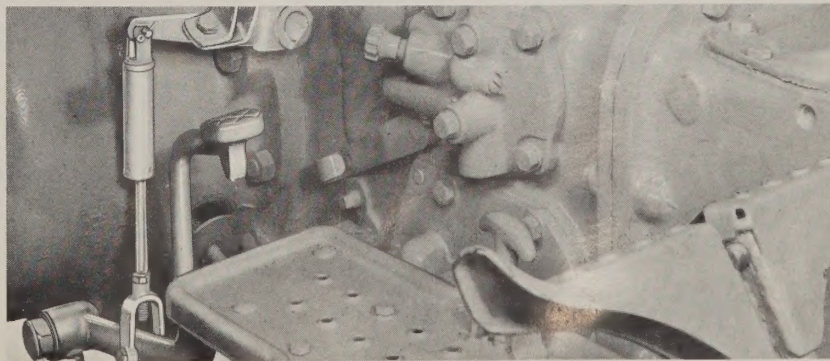


Massive housings add strength —form equipment "base"

The massive new final drive and rear axle housing construction provide unusual structural strength to carry the big new Ford 15-ft backhoe on tough construction jobs. Semi-floating rear axle shafts are of forged steel. Rated capacity of this heavy-duty rear axle construction is 9,000 lb.



Cut-away section shows high-strength load-dividing planetary gearset. Inboard mounting provides superior axle-bearing support.



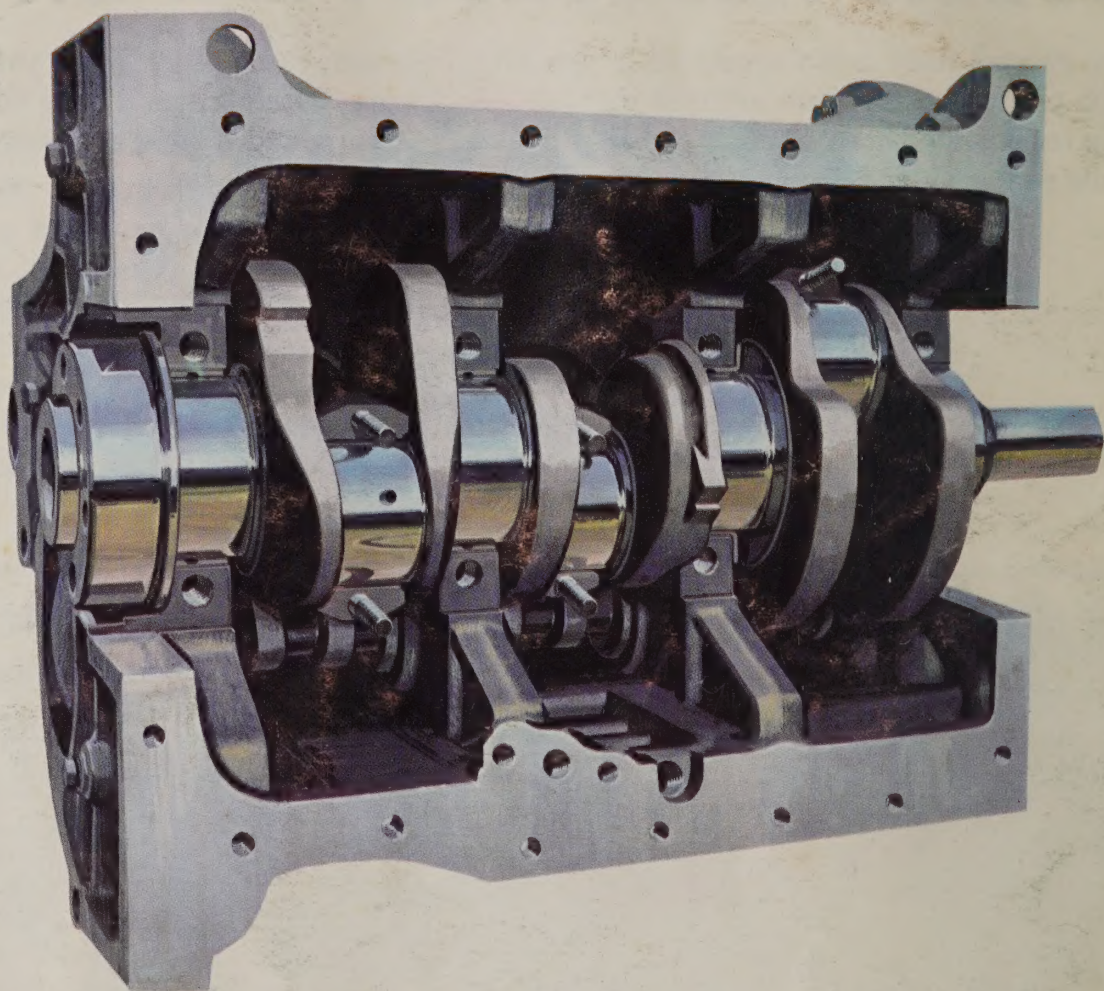
Differential lock gives you full pull-power from both rear wheels when you hit a slippery spot. Just press down with your right heel. Automatically disengages when slippage stops.

FORD 4500 TRACTOR LOADER BACKHOE

**Ford has a better idea.
Three cylinders
instead of four!**

Three-cylinder Ford design puts fewer and stronger parts in a shorter, more rigid engine. Look at the size of those bearings and that massive crankshaft. Four big main bearings measure a whopping $3\frac{3}{8}$ inches in diameter. They're solidly buttressed in one of the strongest cylinder blocks ever in an engine of this size. Rugged cast iron oil pan adds even more rigidity. No wonder these new Ford engines run so smoothly—last so long!

Ford's big-bore, three-cylinder design makes room for bigger valves. Opposed manifolds and new combustion chambers help make these deeper breathing, more responsive engines. You get smooth power and tremendous torque, even at speeds slow as 800 rpm. Gasoline models feature unique temperature-controlled intake manifolds and carburetors with accelerator pumps.



Spark advance is controlled by *both* engine speed and manifold vacuum. You profit with faster response to changing power needs plus outstanding fuel economy.

Diesel or gasoline, you can't beat these new Ford tractors. Watch one on a heavy job, see for yourself.

Design, materials, and/or specifications subject to change without notice, and without liability therefor.

YOUR FORD TRACTOR AND EQUIPMENT DEALER

